

CLAIMS

1. An antibody which binds to a "peptide consisting of the amino acid sequence represented by SEQ ID NO:1".
2. The antibody according to claim 1, which specifically binds to a "peptide consisting of the amino acid sequence represented by SEQ ID NO:2".
3. The antibody according to claim 1 or 2, which is a monoclonal antibody.
4. The antibody according to any one of claims 1 to 3, which belongs to the immunoglobulin subclass IgG1.
5. The antibody according to claim 1, which specifically binds to a "peptide consisting of the amino acid sequence represented by SEQ ID NO:3".
6. The antibody according to claim 1 or 5, which is a polyclonal antibody.
7. A method for assaying a "peptide comprising the amino acid sequence represented by SEQ ID NO:1" in a sample, which comprises using an antibody described in any one of claims 1 to 6.
8. The method according to claim 7, wherein said assaying of the "peptide comprising the amino acid sequence represented by SEQ ID NO:1" is carried out by steps comprising the following steps (a) and (b):

- (a) bringing a solid phase into contact with a sample to thereby immobilize the "peptide comprising the amino acid sequence represented by SEQ ID NO:1" in the sample on the solid phase; and
- (b) detecting the "peptide comprising the amino acid sequence represented by SEQ ID NO:1" immobilized on the solid phase in step (a) by using an "antibody described in any one of claims 1 to 6".

9. The method according to claim 8, wherein the "antibody described in any one of claims 1 to 6" is labeled with a label or is capable of being labeled with a label.

10. The method according to claim 8, wherein said detecting of the "peptide comprising the amino acid sequence represented by SEQ ID NO:1" immobilized on the solid phase is carried out by further using an "antibody which specifically binds to the antibody described in any one of claims 1 to 6 and which is labeled with a label or is capable of being labeled with a label".

11. The method according to claim 7, wherein said assaying of the "peptide comprising the amino acid sequence represented by SEQ ID NO:1" is carried out by steps comprising the following steps (a) and (b):

- (a) bringing a "solid phase on which an antibody described in any one of claims 1 to 6 as a primary antibody is immobilized", a "sample", and an "antibody described in any one of claims 1 to 6 as a secondary antibody" into contact to thereby form a sandwich complex of "the primary antibody immobilized on the solid phase—the peptide comprising the amino acid sequence represented by SEQ ID NO:1—the secondary antibody"; and
- (b) detecting the sandwich complex formed in step (a).

12. The method according to claim 11, wherein said assaying of the "peptide comprising the amino acid sequence represented by SEQ ID NO:1" is carried out by steps comprising the following steps (a) to (c):

- (a) bringing a sample into contact with a "solid phase on which an antibody described in any one of claims 1 to 6 as a primary antibody is immobilized" to thereby form a complex of "the primary antibody immobilized on the solid phase—the peptide comprising the amino acid sequence represented by SEQ ID NO:1";
- (b) bringing an "antibody described in any one of claims 1 to 6 as a secondary antibody" into contact with the solid phase to thereby form a sandwich complex of "the primary antibody immobilized on the solid phase—the peptide comprising the amino acid sequence represented by SEQ ID NO:1—the secondary antibody"; and
- (c) detecting the sandwich complex formed in step (b).

13. The method according to claim 11 or 12, wherein the secondary antibody is labeled with a label or is capable of being labeled with a label.

14. The method according to claim 11 or 12, wherein said detecting of the complex is carried out by using an "antibody which specifically binds to the secondary antibody and which is labeled with a label or is capable of being labeled with a label".

15. The method according to claim 7, wherein said assaying of the "peptide comprising the amino acid sequence represented by SEQ ID NO:1" is carried out by steps comprising the following steps (a) and (b):

- (a) bringing a "solid phase on which a peptide consisting of the amino acid sequence represented by SEQ ID NO:1 is immobilized", a "sample", and an "antibody described in any one of claims 1 to 6" into contact to thereby form a complex of "the peptide consisting of the amino acid sequence represented by SEQ ID NO:1

immobilized on the solid phase—the antibody described in any one of claims 1 to 6" and a complex of "the peptide comprising the amino acid sequence represented by SEQ ID NO:1 in the sample—the antibody described in any one of claims 1 to 6"; and

(b) detecting at least one of the complex of "the peptide consisting of the amino acid sequence represented by SEQ ID NO:1 immobilized on the solid phase—the antibody described in any one of claims 1 to 6" and the complex of "the peptide comprising the amino acid sequence represented by SEQ ID NO:1 in the sample—the antibody according to any one of claims 1 to 6".

16. The method according to claim 15, wherein said assaying of the "peptide comprising the amino acid sequence represented by SEQ ID NO:1" is carried out by steps comprising the following steps (a) to (c):

(a) bringing a sample into contact with an "antibody described in any one of claims 1 to 6" to thereby form a complex-A of "the peptide comprising the amino acid sequence represented by SEQ ID NO:1—the antibody described in any one of claims 1 to 6";

(b) bringing a "mixture comprising the complex-A and the antibody described in any one of claims 1 to 6 which does not form the complex-A" obtained in step (a) into contact with a "solid phase on which the peptide consisting of the amino acid sequence represented by SEQ ID NO:1 is immobilized" to thereby form a complex of "the peptide consisting of the amino acid sequence represented by SEQ ID NO:1 immobilized on the solid phase—the antibody described in any one of claims 1 to 6"; and

(c) detecting the complex formed in step (b).

17. The method according to claim 15 or 16, wherein the "antibody described in any one of claims 1 to 6" is labeled with a label or is capable of being labeled with a label.

18. The method according to claim 15 or 16, wherein said detecting of the complex is carried out by using an "antibody which specifically binds to the antibody according to any one of claims 1 to 6 and which is labeled with a label or is capable of being labeled with a label".

19. The method according to any one of claims 7 to 18, wherein the sample is a body fluid.

20. A kit for assaying a "peptide comprising the amino acid sequence represented by SEQ ID NO:1", which comprises the following components (A) and (B):

- (A) a solid phase; and
- (B) an antibody described in any one of claims 1 to 6.

21. The kit according to claim 20, wherein the "antibody described in any one of claims 1 to 6" is labeled with a label or is capable of being labeled with a label.

22. A kit for assaying a "peptide comprising the amino acid sequence represented by SEQ ID NO:1", which comprises the following components (A) and (B):

- (A) a solid phase on which an antibody described in any one of claims 1 to 6 as a primary antibody is immobilized; and
- (B) an antibody described in any one of claims 1 to 6 as a secondary antibody.

23. The kit according to claim 22, wherein the secondary antibody is labeled with a label or is capable of being labeled with a label.

24. A kit for assaying a "peptide comprising the amino acid sequence represented by SEQ ID NO:1", which comprises the following components (A), (B) and (C):

- (A) a solid phase on which a peptide consisting of the amino acid sequence represented by SEQ ID NO:1 is immobilized;
- (B) an antibody described in any one of claims 1 to 6; and
- (C) an antibody which specifically binds to the antibody described in any one of claims 1 to 6 and which is labeled with a label or is capable of being labeled with a label.

25. A method for detecting a bacterial pneumonia, which comprises assaying an antigen in a sample which can be detected by an "antibody described in any one of claims 1 to 6" or an "antibody capable of specifically binding to CAP18" to thereby detect a bacterial pneumonia in a patient from which the sample is obtained.

26. The method according to claim 25, wherein the antigen in the sample is selected from the group consisting of a "peptide comprising the amino acid sequence represented by SEQ ID NO:1", a "peptide comprising the amino acid sequence represented by SEQ ID NO:2", a "peptide comprising the amino acid sequence represented by SEQ ID NO:3", and CAP18.

27. The method according claim 25, wherein said assaying is immunologically carried out by using an antibody selected from the group consisting of an "antibody capable of binding to a peptide consisting of the amino acid sequence represented by SEQ ID NO:1", an "antibody capable of specifically binding to a peptide consisting of the amino acid sequence represented by SEQ ID NO:2", an "antibody capable of specifically binding to a peptide consisting of the amino acid sequence

represented by SEQ ID NO:3", and an "antibody capable of specifically binding to CAP18".

28. The method according to claim 25, wherein said detecting of a bacterial pneumonia is carried out by evaluating or monitoring the presence or absence of infection, degree or type of the bacterial pneumonia.

29. The method according to any one of claims 25 to 28, wherein said assaying is carried out by a method described in any one of claims 7 to 19.

30. A kit for diagnosing a bacterial pneumonia, which comprises an antibody described in any one of claims 1 to 6.

31. The kit according to claim 30, which consists of any one of a kit described in any one of claims 20 to 24.

32. A diagnostic agent which comprises, as an active ingredient, an antibody according to any one of claims 1 to 6.